

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	"5919596".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/21 10:55
L2	0	thiophenium with naphthalenyl	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/21 10:55
L3	45	thiophenium with (sulfonate sulfonic)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/21 11:44
L4	27	3 and @ad<"20040109"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/21 12:26
L5	8	thiophenium and 549/13,29,88,90.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/21 12:25
L6	7	thiophenium and 568/18-77.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/21 12:26
L7	6	6 and @ad<"20040109"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/21 13:15
L8	2	"5919596".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/21 13:20
L9	2	ep-849634-\$ did.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/21 13:22
L10	2	jp-2002229192-\$ did.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/21 13:23
L11	2	de-10054550-\$ did.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/21 13:23

EAST Search History

S1	0	sulfonium.ti. and sulfonate with fluoromethyl	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/20 15:31
S2	0	onium.ti. and sulfonate with fluoromethyl	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/20 15:31
S3	445	kodama-kunihiko.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/20 15:36
S4	0	S3 and sulfonium with sulfonate with fluoromethyl	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/20 15:36
S5	32	S3 and sulfonium with sulfonate	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/20 15:37
S6	27	S5 and @ad<"20060215"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/20 16:54
S7	20	S5 and @ad<"20040109"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/20 15:51
S8	20	S5 and @ad<"20030122"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/20 16:21
S9	20	S6 and @ad<"20030122"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/21 10:52
S10	0	S9 not S8	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/20 16:21
S11	2	"6492091".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/20 16:54



UNITED STATES PATENT AND TRADEMARK OFFICE

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Bib Data Sheet

CONFIRMATION NO. 4088

SERIAL NUMBER 10/543,092	FILING OR 371(c) DATE 07/22/2005 RULE	CLASS 430	GROUP ART UNIT 1752	ATTORNEY DOCKET NO. 70020.0066USWO
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APPLICANTS

Takashi Miyamatsu, Tokyo, JAPAN;
 Hirokazu Niwata, Tokyo, JAPAN;
 Satoshi Ebata, Tokyo, JAPAN;
 Yong Wang, Tokyo, JAPAN;

** CONTINUING DATA *****

This application is a 371 of PCT/JP04/00130 01/09/2004

** FOREIGN APPLICATIONS *****

JAPAN 2003-013294 01/22/2003
 JAPAN 2003-271015 07/04/2003

JF
JF

IF REQUIRED, FOREIGN FILING LICENSE GRANTED

** 08/17/2006

Foreign Priority claimed	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no				
35 USC 119 (a-d) conditions met	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after				
Verified and Acknowledged	<i>JF</i> Allowance Examiner's Signature <i>JF</i> Initials	STATE OR COUNTRY JAPAN	SHEETS DRAWING 6	TOTAL CLAIMS 19	INDEPENDENT CLAIMS 1

ADDRESS

23552

TITLE

Sulfonium salt compound, photoacid generator, and positive-tone radiation-sensitive resin composition

FILING FEE RECEIVED 900	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit
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Scientific & Technical Information Center

Search Report

EIC 1700

STIC Database Tracking Number: 228522

To: JOHN CHU
Location: REM-9D51
Art Unit: 1752
Thursday, June 21, 2007
Phone: (571) 272-1329
Case Serial Number: 10 / 543092

From: JAN DELAVAL
Location: EIC1700
REM-4B28 / REM-4A30
Phone: (571)272-2504

jan.delaval@uspto.gov

Search Notes

Banks, Kendra

228522

From: JOHN CHU [john.chu@uspto.gov]
Sent: Wednesday, June 20, 2007 3:34 PM
To: STIC-EIC1700
Subject: Database Search Request, Serial Number: 10/543,092

Requester:
JOHN CHU (P/1752)

Art Unit:
GROUP ART UNIT 1752

Employee Number:
68314

Office Location:
REM 09D51

Phone Number:
(571)272-1329

Mailbox Number:

Case serial number:
10/543,092

Class / Subclass(es):
430/270.1

Earliest Priority Filing Date:
1/22/03

Format preferred for results:
Paper

Search Topic Information:

Please search the sulfonium salt of claim 1 and then search its use in a photoresist composition as an acid generator.

Thank you!!

John Chu

Special Instructions and Other Comments:

SCIENTIFIC REFERENCE BR
Sci & Tech Inf. Ctr.
JUN 2007 Rec'd

Pat. & T.M. Office

John

6/21/07

=> fil reg
FILE 'REGISTRY' ENTERED AT 07:30:19 ON 21 JUN 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 JUN 2007 HIGHEST RN 937844-74-1
DICTIONARY FILE UPDATES: 19 JUN 2007 HIGHEST RN 937844-74-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

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AND NC>=2
L26 STR
Cb~~~S
1 2

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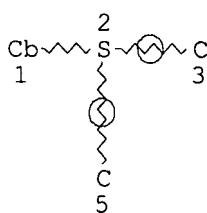
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GGCAT IS PCY AT 1
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS E10 C AT 1

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NUMBER OF NODES IS 2

STEREO ATTRIBUTES: NONE

L28 186 SEA FILE=REGISTRY SUB=L25 SSS FUL L26
L29 STR



NODE ATTRIBUTES:

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NSPEC IS R AT 3
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 DEFAULT MLEVEL IS ATOM
 GGCAT IS PCY AT 1
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS E10 C AT 1

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STEREO ATTRIBUTES: NONE

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 L34 STR

4
 O
 |||
 S 2
 |||
 O
 5

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE

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 L37 79 SEA FILE=REGISTRY ABB=ON PLU=ON 591.49.57/RID AND L36

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 DEL HIS

FILE 'HCAPLUS' ENTERED AT 07:08:13 ON 21 JUN 2007
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 E MIYAMATSU/AU
 E TAKASHI/AU
 L2 11 S E3
 E TAKASHI M/AU
 L3 11 S E3
 L4 19 S E46
 E NIWATA/AU
 L5 1 S E9
 E HIROKAZU/AU
 L6 1 S E3
 E EBATA/AU
 L7 22 S E89,E93
 E SATOSHI/AU
 L8 2 S E3
 L9 6 S E64
 E WANG/AU
 L10 13 S E3

L11 E WANG Y/AU
 7656 S E3-E48
 E WANG YONG/AU
 L12 7890 S WANG YONG?/AU
 E WANG NAME/AU
 L13 75 S E4
 E YONG/AU
 E YONG NAME/AU
 E YONG W/AU
 L14 29 S E4-E7,E11,E12
 E JSR/PA,CS
 L15 3837 S E3,E4 OR JSR?/PA,CS
 SEL RN L1

FILE 'REGISTRY' ENTERED AT 07:12:43 ON 21 JUN 2007

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 L18 7 S L17 AND NC>=2
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 L22 0 S L21
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 L25 49711 S C6-C6/ES AND S/ELS AND NR>=3 AND NC>=2
 L26 STR
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 L28 186 S L26 FUL SUB=L25
 SAV TEMP L28 CHU543A/A
 L29 STR L26
 L30 6 S L29 SAM SUB=L28
 L31 137 S L29 FUL SUB=L28
 SAV TEMP L31 CHU543B/A
 L32 STR
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 L34 STR L32
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 SAV TEMP L36 CHU543C/A
 L37 79 S 591.49.57/RID AND L36
 SAV TEMP L37 CHU543D/A
 L38 72 S L37 NOT L18
 L39 2 S L38 AND C18H23OS AND C10H15O4S
 L40 1 S L39 NOT 848209-21-2
 L41 7 S L37 NOT L38
 L42 8 S L40,L41
 SAV TEMP L42 CHU543E/A
 L43 71 S L37 NOT L42

FILE 'HCAPLUS' ENTERED AT 07:27:37 ON 21 JUN 2007

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 E MIYAMATSU T/AU
 L45 32 S E4
 E TAKASHI/AU
 L46 11 S E3
 E TAKASHI M/AU
 L47 11 S E3
 L48 2 S L44 AND L1-L15,L45-L47

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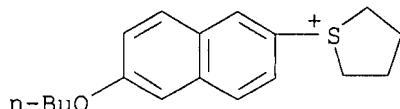
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=> d ide can tot 142

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 RN 925445-79-0 REGISTRY
 ED Entered STN: 07 Mar 2007
 CN Thiophenium, 1-(6-butoxy-2-naphthalenyl)tetrahydro-, 7,7-dimethyl-2-oxobicyclo[2.2.1]heptane-1-methanesulfonate (1:1) (CA INDEX NAME)
 MF C18 H23 O S . C10 H15 O4 S
 SR CA
 LC STN Files: CA, CAPLUS

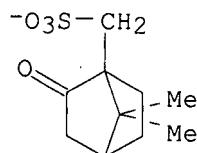
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CRN 733045-24-4
 CMF C18 H23 O S



CM 2

CRN 55077-28-6
 CMF C10 H15 O4 S



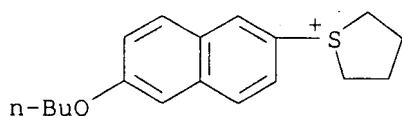
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 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 146:262064

L42 ANSWER 2 OF 8 REGISTRY COPYRIGHT 2007 ACS on STN
 RN 733045-30-2 REGISTRY
 ED Entered STN: 26 Aug 2004
 CN Thiophenium, 1-(6-butoxy-2-naphthalenyl)tetrahydro-, salt with α,α,β,β-tetrafluorobicyclo[2.2.1]heptane-2-ethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)
 MF C18 H23 O S . C9 H11 F4 O3 S
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

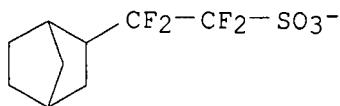
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CRN 733045-24-4
 CMF C18 H23 O S



CM 2

CRN 474516-37-5
 CMF C9 H11 F4 O3 S



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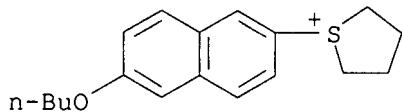
1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:181976

L42 ANSWER 3 OF 8 REGISTRY COPYRIGHT 2007 ACS on STN
 RN 733045-29-9 REGISTRY
 ED Entered STN: 26 Aug 2004
 CN Thiophenium, 1-(6-butoxy-2-naphthalenyl)tetrahydro-, methanesulfonate
 (9CI) (CA INDEX NAME)
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 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

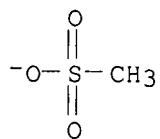
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CRN 733045-24-4
 CMF C18 H23 O S



CM 2

CRN 16053-58-0
 CMF C H3 O3 S



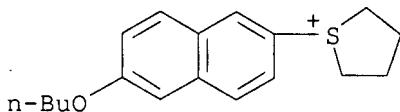
1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:181976

L42 ANSWER 4 OF 8 REGISTRY COPYRIGHT 2007 ACS on STN
 RN 733045-25-5 REGISTRY
 ED Entered STN: 26 Aug 2004
 CN Thiophenium, 1-(6-butoxy-2-naphthalenyl)tetrahydro-, salt with
 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX
 NAME)
 MF C18 H23 O S . C4 F9 O3 S
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 733045-24-4
 CMF C18 H23 O S



CM 2

CRN 45187-15-3
 CMF C4 F9 O3 S

-O3S-(CF2)3-CF3

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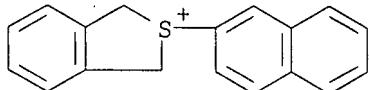
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L42 ANSWER 5 OF 8 REGISTRY COPYRIGHT 2007 ACS on STN
 RN 733045-23-3 REGISTRY
 ED Entered STN: 26 Aug 2004
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 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX
 NAME)
 MF C18 H15 S . C4 F9 O3 S

SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 733045-22-2
 CMF C18 H15 S



CM 2

CRN 45187-15-3
 CMF C4 F9 O3 S

-O₃S-(CF₂)₃-CF₃

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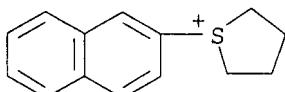
1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:181976

L42 ANSWER 6 OF 8 REGISTRY COPYRIGHT 2007 ACS on STN
 RN 733045-21-1 REGISTRY
 ED Entered STN: 26 Aug 2004
 CN Thiophenium, tetrahydro-1-(2-naphthalenyl)-, salt with
 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-1-octanesulfonic acid
 (1:1) (CA INDEX NAME)
 MF C14 H15 S . C8 F17 O3 S
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 733045-18-6
 CMF C14 H15 S



CM 2

CRN 45298-90-6
 CMF C8 F17 O3 S

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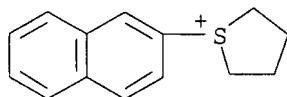
1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:181976

L42 ANSWER 7 OF 8 REGISTRY COPYRIGHT 2007 ACS on STN
 RN 733045-20-0 REGISTRY
 ED Entered STN: 26 Aug 2004
 CN Thiophenium, tetrahydro-1-(2-naphthalenyl)-, salt with
 $\alpha,\alpha,\beta,\beta$ -tetrafluorobicyclo[2.2.1]heptane-2-
 ethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)
 MF C14 H15 S . C9 H11 F4 O3 S
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

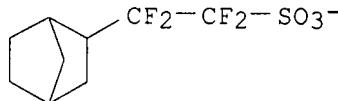
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CRN 733045-18-6
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CM 2

CRN 474516-37-5
 CMF C9 H11 F4 O3 S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:181976

L42 ANSWER 8 OF 8 REGISTRY COPYRIGHT 2007 ACS on STN
 RN 733045-19-7 REGISTRY
 ED Entered STN: 26 Aug 2004
 CN Thiophenium, tetrahydro-1-(2-naphthalenyl)-, salt with

1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX
NAME)

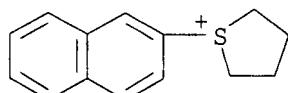
MF C14 H15 S . C4 F9 O3 S

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

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CM 2

CRN 45187-15-3
CMF C4 F9 O3 S

-O₃S-(CF₂)₃-CF₃

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:181976

=> fil uspatful
FILE 'USPATFULL' ENTERED AT 07:30:37 ON 21 JUN 2007
CA INDEXING COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 19 Jun 2007 (20070619/PD)
FILE LAST UPDATED: 19 Jun 2007 (20070619/ED)
HIGHEST GRANTED PATENT NUMBER: US7234169
HIGHEST APPLICATION PUBLICATION NUMBER: US2007136919
CA INDEXING IS CURRENT THROUGH 19 Jun 2007 (20070619/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 19 Jun 2007 (20070619/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2006
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2006

=> d bib abs hitstr 149

L49 ANSWER 1 OF 1 USPATFULL on STN
AN 2006:166878 USPATFULL
TI Sulfonium salts, radiation-sensitive acid generators, and positive
radiation-sensitive resin compositions
IN Miyamatsu, Takashi, C/O JSR CORPORATION, 5-6-10, TSUKIJI, CHUO-KU,
TOKYO, JAPAN
Niwata, Hirokazu, Tokyo, JAPAN

Ebata, Satoshi, Tokyo, JAPAN
 Wang, Yong, Tokyo, JAPAN
 PI US 2006141383 A1 20060629
 AI US 2004-543092 A1 20040109 (10)
 WO 2004-JP130 20040109
 20050722 PCT 371 date
 PRAI JP 2003-13294 20030122
 JP 2003-271015 20030704
 DT Utility
 FS APPLICATION
 LREP MERCHANT & GOULD PC, P.O. BOX 2903, MINNEAPOLIS, MN, 55402-0903, US
 CLMN Number of Claims: 19
 ECL Exemplary Claim: 1
 DRWN 6 Drawing Page(s)
 LN.CNT 1982

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A sulfonium salt compound excelling in transparency to deep ultraviolet rays at a wavelength of 220 nm or less, exhibiting well-balanced excellent performance such as sensitivity, resolution, pattern form, LER, and storage stability when used as a photoacid generator, a photoacid generator comprising the sulfonium salt compound, and a positive-tone radiation-sensitive resin composition containing the photoacid generator. The sulfonium salt compound is shown by the following formula (I), ##STR1## wherein R.¹ represents a halogen atom, an alkyl group, a monovalent alicyclic hydrocarbon group, an alkoxy group, or --OR.³ group, wherein R.³ is a monovalent alicyclic hydrocarbon group, R.² represents a (substituted)-alkyl group or two or more R.² groups form a cyclic structure, p is 0-7, q is 0-6, n is 0-3, and X.⁻ indicates a sulfonic acid anion. The positive-tone radiation-sensitive resin composition comprises (A) a photoacid generator of the sulfonium-salt compound and (B) an acid-dissociable group-containing resin.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 733045-29-9P

(sulfonium salts, radiation-sensitive acid generators, and pos. radiation-sensitive resin compns.)

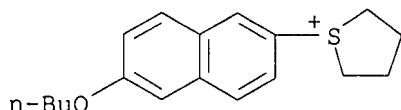
RN 733045-29-9 USPATFULL

CN Thiophenium, 1-(6-butoxy-2-naphthalenyl)tetrahydro-, methanesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 733045-24-4

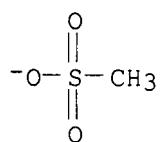
CMF C18 H23 O S



CM 2

CRN 16053-58-0

CMF C H3 O3 S



IT 733045-19-7P 733045-20-0P 733045-21-1P
 733045-23-3P 733045-25-5P 733045-30-2P
 (sulfonium salts, radiation-sensitive acid generators, and pos.
 radiation-sensitive resin compns.)

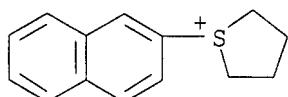
RN 733045-19-7 USPATFULL

CN Thiophenium, tetrahydro-1-(2-naphthalenyl)-, salt with
 1,1,2,2,3,3,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA
 INDEX NAME)

CM 1

CRN 733045-18-6

CMF C14 H15 S



CM 2

CRN 45187-15-3

CMF C4 F9 O3 S

-O₃S-(CF₂)₃-CF₃

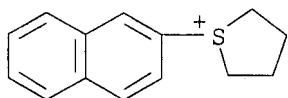
RN 733045-20-0 USPATFULL

CN Thiophenium, tetrahydro-1-(2-naphthalenyl)-, salt with
 α,α,β,β-tetrafluorobicyclo[2.2.1]heptane-2-
 ethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 733045-18-6

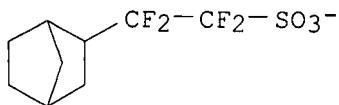
CMF C14 H15 S



CM 2

CRN 474516-37-5

CMF C9 H11 F4 O3 S



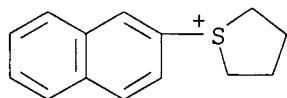
RN 733045-21-1 USPATFULL

CN Thiophenium, tetrahydro-1-(2-naphthalenyl)-, salt with
1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-1-octanesulfonic acid
(1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 733045-18-6

CMF C14 H15 S



CM 2

CRN 45298-90-6

CMF C8 F17 O3 S

-O₃S-(CF₂)₇-CF₃

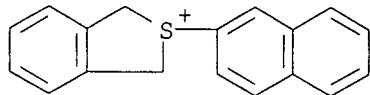
RN 733045-23-3 USPATFULL

CN Benzo[c]thiophenium, 1,3-dihydro-2-(2-naphthalenyl)-, salt with
1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-1-butanesulfonic acid (1:1) (9CI) (CA
INDEX NAME)

CM 1

CRN 733045-22-2

CMF C18 H15 S



CM 2

CRN 45187-15-3

CMF C4 F9 O3 S

$\text{-O}_3\text{S-}(\text{CF}_2)_3\text{-CF}_3$

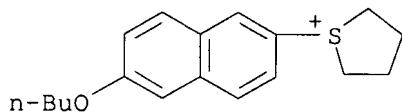
RN 733045-25-5 USPATFULL

CN Thiophenium, 1-(6-butoxy-2-naphthalenyl)tetrahydro-, salt with
1,1,2,2,3,3,4,4,4-nonafluoro-1-butanесulfonic acid (1:1) (9CI) (CA
INDEX NAME)

CM 1

CRN 733045-24-4

CMF C18 H23 O S



CM 2

CRN 45187-15-3

CMF C4 F9 O3 S

$\text{-O}_3\text{S-}(\text{CF}_2)_3\text{-CF}_3$

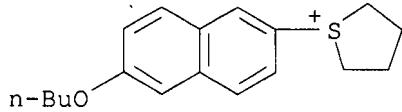
RN 733045-30-2 USPATFULL

CN Thiophenium, 1-(6-butoxy-2-naphthalenyl)tetrahydro-, salt with
 $\alpha, \alpha, \beta, \beta$ -tetrafluorobicyclo[2.2.1]heptane-2-
ethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 733045-24-4

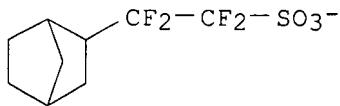
CMF C18 H23 O S



CM 2

CRN 474516-37-5

CMF C9 H11 F4 O3 S



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FILE LAST UPDATED: 19 Jun 2007 (20070619/ED)

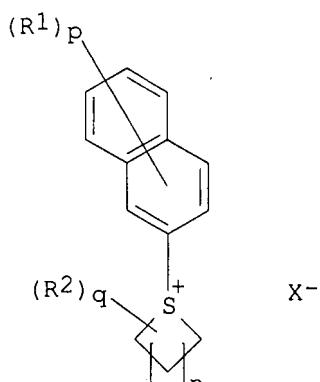
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=> d bib abs hitstr retable tot 148

L48 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:169948 HCAPLUS
DN 146:262064
TI Positive-working radiation-sensitive resin composition
IN Yoneda, Eiji; Shimizu, Makoto
PA Jsr Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 41pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 2007041231 A 20070215 JP 2005-224577 20050802
PRAI JP 2005-224577 20050802
GI



AB The composition contains (A) a F-containing radiation-sensitive acid generating agent, (B) an alkali-insol. or poorly soluble resin with an acid dissociation group, showing easy alkali solubility when it is dissociated, and (C) I [R1 = halo, C1-14 straight-chain or branched alkyl, C3-14 alicyclic group, alkoxy, alkane sulfonyl, etc.; R2 = (un)substituted C1-14 straight-chain, branched, or cyclic alkyl, etc.; p = 0-7; q = 0-6; n = 0-3; X- = sulfonic acid anion without F atom]. The composition shows improved sensitivity, resolution, and line edge roughness.

IT 925445-79-0P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(acid diffusion preventing agent; pos. photoresist composition containing photoacid generator, resin, and naphthalene sulfonium compound)

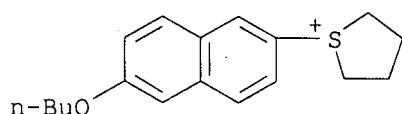
RN 925445-79-0 HCAPLUS

CN Thiophenium, 1-(6-butoxy-2-naphthalenyl)tetrahydro-, 7,7-dimethyl-2-oxobicyclo[2.2.1]heptane-1-methanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 733045-24-4

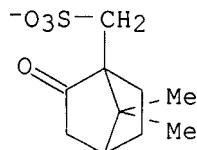
CMF C18 H23 O S



CM 2

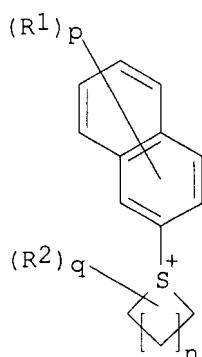
CRN 55077-28-6

CMF C10 H15 O4 S



L48 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 2004:633920 HCAPLUS
 DN 141:181976
 TI Sulfonium salts, radiation-sensitive acid generators, and positive radiation-sensitive resin compositions
 IN Miyamatsu, Takashi; Niwata, Hirokazu; Ebata, Satoshi; Wang, Yong
 PA JSR Corporation, Japan
 SO PCT Int. Appl., 81 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004065377	A1	20040805	WO 2004-JP130	20040109 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
	JP 2005041857	A	20050217	JP 2003-427004	20031224 <--
	EP 1586570	A1	20051019	EP 2004-701104	20040109 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1738813	A	20060222	CN 2004-80002268	20040109 <--
	JP 3760952	B2	20060329	JP 2005-508025	20040109 <--
	US 2006141383	A1	20060629	US 2005-543092	20050722 <--
PRAI	JP 2003-13294	A	20030122	<--	
	JP 2003-271015	A	20030704	<--	
	WO 2004-JP130	W	20040109	<--	
OS	MARPAT	141:181976			
GI					



AB The invention relates to sulfonium salts which are excellent in transparency to rays having wavelengths of 220 nm or below and can attain excellent performances in sensitivity, resolution, pattern shape, LER, storage stability, and so on when used as radiation-sensitive acid generator; and pos. radiation-sensitive resin compns. containing the salts as the radiation-sensitive acid generator. The sulfonium salts are represented by the general formula I: (R1= halogeno, alkyl, alicyclic hydrocarbyl, etc.; R2= alkyl, alicyclic group; p= 0-7; q =0-6; n=0-3; and X= sulfonate anion). The pos. radiation-sensitive resin compns. comprise (A) radiation-sensitive acid generators consisting of the sulfonium salts and (B) resins having acid-dissociable groups.

IT 733045-29-9P

RL: BYP (Byproduct); PREP (Preparation)
(sulfonium salts, radiation-sensitive acid generators, and pos.
radiation-sensitive resin compns.)

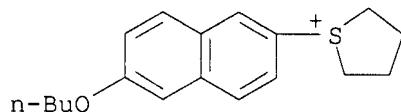
RN 733045-29-9 HCAPLUS

CN Thiophenium, 1-(6-butoxy-2-naphthalenyl)tetrahydro-, methanesulfonate
(9CI) (CA INDEX NAME)

CM 1

CRN 733045-24-4

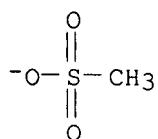
CMF C18 H23 O S



CM 2

CRN 16053-58-0

CMF C H3 O3 S



IT 733045-19-7P 733045-20-0P 733045-21-1P
 733045-23-3P 733045-25-5P 733045-30-2P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (sulfonium salts, radiation-sensitive acid generators, and pos.
 radiation-sensitive resin compns.)

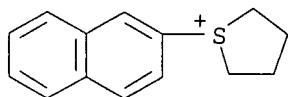
RN 733045-19-7 HCPLUS

CN Thiophenium, tetrahydro-1-(2-naphthalenyl)-, salt with
 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 733045-18-6

CMF C14 H15 S



CM 2

CRN 45187-15-3

CMF C4 F9 O3 S

-O₃S-(CF₂)₃-CF₃

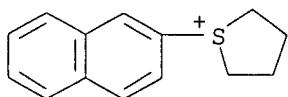
RN 733045-20-0 HCPLUS

CN Thiophenium, tetrahydro-1-(2-naphthalenyl)-, salt with
 α,α,β,β-tetrafluorobicyclo[2.2.1]heptane-2-
 ethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

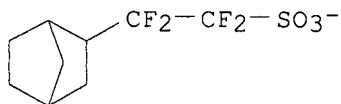
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CMF C14 H15 S



CM 2

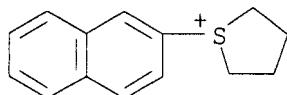
CRN 474516-37-5
 CMF C9 H11 F4 O3 S



RN 733045-21-1 HCPLUS
 CN Thiophenium, tetrahydro-1-(2-naphthalenyl)-, salt with
 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-1-octanesulfonic acid
 (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 733045-18-6
 CMF C14 H15 S



CM 2

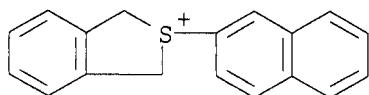
CRN 45298-90-6
 CMF C8 F17 O3 S

-O3S-(CF2)7-CF3

RN 733045-23-3 HCPLUS
 CN Benzo[c]thiophenium, 1,3-dihydro-2-(2-naphthalenyl)-, salt with
 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX
 NAME)

CM 1

CRN 733045-22-2
 CMF C18 H15 S



CM 2

CRN 45187-15-3
 CMF C4 F9 O3 S

$\text{O}_3\text{S}-(\text{CF}_2)_3-\text{CF}_3$

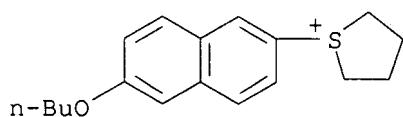
RN 733045-25-5 HCAPLUS

CN Thiophenium, 1-(6-butoxy-2-naphthalenyl)tetrahydro-, salt with
 $\alpha, \alpha, 2, 2, 3, 3, 4, 4$ -nonafluoro-1-butanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 733045-24-4

CMF C18 H23 O S



CM 2

CRN 45187-15-3

CMF C4 F9 O3 S

$\text{O}_3\text{S}-(\text{CF}_2)_3-\text{CF}_3$

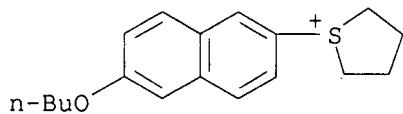
RN 733045-30-2 HCAPLUS

CN Thiophenium, 1-(6-butoxy-2-naphthalenyl)tetrahydro-, salt with
 $\alpha, \alpha, \beta, \beta$ -tetrafluorobicyclo[2.2.1]heptane-2-ethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 733045-24-4

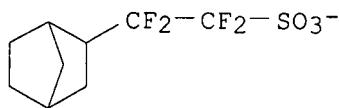
CMF C18 H23 O S



CM 2

CRN 474516-37-5

CMF C9 H11 F4 O3 S



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Geigy J R A G	1971			GB 1235815 A	HCAPLUS
Geigy J R A G	1971			DE 1951803 A	HCAPLUS
Geigy J R A G	1971			FR 2020740 A	HCAPLUS
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Japan Synthetic Rubber	1998			JP 10-232490 A	HCAPLUS
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Japan Synthetic Rubber	1998			US 6187504 B1	HCAPLUS
Japan Synthetic Rubber	1998			EP 849634 A1	HCAPLUS
Jsr Ltd	2002			JP 2002229192 A	HCAPLUS
Jsr Ltd	2003			JP 2003335826 A	HCAPLUS

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